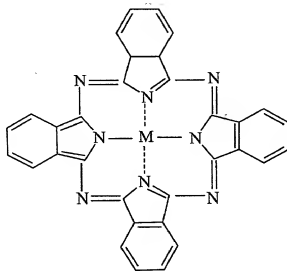


CLAIMS

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1. An improved process for the preparation of metal phthalocyanines sulphonamides of formula 1

10 **Structural formula of metal phthalocyanines sulphonamides**

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**Metal phthalocyanine (MPc)****MPc (SO<sub>2</sub> NHR)<sub>x</sub>****M = Co, Ni, Fe, Mn, Cr, V****X = 1, 2, 3, 4****R = H, alkyl, cycloalkyl,**

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**Formula 1**

catalyst useful for sweetening of LPG and light petroleum distillates which comprises;

reacting a metal phthalocyanine with chlorosulphonic acid at a temperature in the range of 90-150°C for a period ranging between 1 hr-5 hrs, cooling the mixture to a temperature ranging between 40-80°C, adding 1-7 parts of a chloride reagent to the said mixture, heating the above said mixture to a temperature ranging between 60-80°C for a period ranging between 0.5 hr to 3 hrs to obtain the metal phthalocyanine sulphonyl chloride, isolating the above said compound by adding the reaction mixture in an ice cold water, reacting the above isolated metal phthalocyanine sulphonyl chloride with an amine of general formula  $H_2NR$  where R is selected from hydrogen, aryl, alkyl and cycloalkyl in an aqueous or non aqueous medium or a mixture thereof at a temperature in the range -40°C to 15°C and at a pH ranging between 7-9 in the presence of an acid binding agent to obtain the desired catalyst.

2. An improved process as claimed in claim 1, wherein the metal phthalocyanine used is selected from the group consisting of cobalt, manganese, iron, nickel, chromium and vanadium phthalocyanine, most preferably cobalt phthalocyanine.

3. An improved process as claimed in claim 1-2, wherein the chloride reagent used is selected from the group consisting of thionyl chloride, phosphorous trichloride and phosphorous pentachloride.

4. An improved process claimed in claim 1-3 wherein the non-aqueous medium used is selected from the group consisting of chlorobenzene, nitrobenzene, alcohols and N, N-dimethylformamide.
5. An improved process as claimed in claim 1-4 wherein the acid binding agent used is selected from the group consisting of sodium bicarbonate, sodium carbonate, sodium hydroxide and tertiary organic bases selected from pyridine, triethyl amine and piperidine.
6. An improved process as claimed in claim 1-5 wherein the catalyst prepared is metal phthalocyanine sulphonamide selected from the group consisting of cobalt, manganese, nickel, iron, vanadium phthalocyanine sulphonamide and their N- substituted sulphanamide derivatives, most preferably selected from cobalt phthalocyanine tetra-sulphonamide and cobalt phthalocyanine tetra-N- (4-hydroxy phenyl) sulphonamide.